Beaumont Fire-Rescue Services

PERFORMANCE BENCHMARKS

406.03A
Container Identification

Discipline: Hazmat – Technician Level
Effective: 7/5/2011
Revised:
Replaces:

Anne Huff, Fire Chief

I. Objective

A. Given examples of various containers for hazardous materials/WMD, the hazardous materials technician shall identify each container by name and specification and identify the typical contents by name and hazard class.
B. Given examples of the following railroad cars, the hazardous materials technician shall identify the container by name and specification and identify the typical contents by name and hazard class:
    1. Cryogenic liquid tank cars
    2. Non-pressure tank cars
    3. Pneumatically unloaded hopper cars
    4. Pressure tank cars
C. Given examples of the following intermodal tanks, the hazardous materials technician shall identify the container by name and specification and identify the typical contents by name and hazard class:
    1. Non-pressure intermodal tanks
        a. IM-101 portable tanks (IMO Type 1 internationally)
        b. IM-102 portable tanks (IMO Type 2 internationally)
    2. Pressure intermodal tank (DOT Specification 51; IMO Type 5 internationally)
    3. Specialized intermodal tanks
        a. Cryogenic intermodal tanks (DOT Specification 51; IMO Type 7 internationally)
        b. Tube modules
D. Given examples of the following cargo tanks, the hazardous materials technician shall identify the container by name and specification and identify the typical contents by name and hazard class:
    1. Compressed gas tube trailers
    2. Corrosive liquid tanks
    3. Cryogenic liquid tanks
    4. Dry bulk cargo tanks
    5. High-pressure tanks
    6. Low-pressure chemical tanks
    7. Non-pressure liquid tanks
E. Given examples of the following facility storage tanks, the hazardous materials technician shall identify the container by name and identify the typical contents by name and hazard class:
    1. Cryogenic liquid tank
    2. Non-pressure tank

3. Pressure tank

F. Given examples of the following non-bulk packaging, the hazardous materials technician shall identify the package by name and identify the typical contents by name and hazard class:
    1. Bags
    2. Carboys
    3. Cylinders
    4. Drums

G. Given examples of the following radioactive materials packages, the hazardous materials technician shall identify the container/package by name and identify the typical contents by name:
    1. Excepted
    2. Industrial
    3. Type A
    4. Type B
    5. Type C

H. Given examples of three facility and three transportation containers, the hazardous materials technician shall identify the approximate capacity of each container.
    1. Using the markings on the container, the hazardous materials technician shall identify the capacity (by weight or volume) of the following examples of transportation vehicles:
        a. Cargo tanks
        b. Tank cars
        c. Tank container
    2. Using the markings on the container and other available resources, the hazardous materials technician shall identify the capacity (by weight or volume) of each of the following facility containers:
        a. Cryogenic liquid tank
        b. Non-pressure tank (general service or low-pressure tank)
        c. Pressure tank

II. Instructions – Procedures for Achieving the Objective

Given a worksheet or audio/visual presentation you shall identify the name of, type, capacity, and typical contents of each container represented. You will begin on my instructions to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

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III. Examiner's Note

The hazardous materials technician will not be allowed to review the performance steps at the time of testing.

IV. Preparation & Equipment

An audio/visual presentation (i.e. PowerPoint Presentation) or a pre-prepared worksheet.

V. Reference Sources

Required Texts

A. *Certification Curriculum Manual.* Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.

B. *Code of Federal Regulations, Title 29 Part 1910.120, Appendix A*. United States. U.S. Department of Labor, Occupational Safety & Health Administration. http://edocket.access.gpo.gov/cfr_2007/julqtr/pdf/29cfr1910.120.pdf
C. *Emergency Action Guides*. American Association of Railroads. (2006). Pueblo, CO: American Association of Railroads.
D. *Emergency Response Guidebook.* United States. (Most current edition). Washington, DC: U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.
E. *Fire Fighter's Handbook of Hazardous Materials*, 7th edition. Baker, Charles T., (2006). Sudsbury, MA: Jones and Bartlett.
F. *Hazardous Materials: Managing the Incident*. Chester Noll, G. G, Hildebrand, M. S., & Yvorra, J. G. (2005). MD: Red Hat Publishing, Inc.
G. *Hazardous Materials/Weapons of Mass Destruction Response Handbook,* Trebisacci, D. (2008). 5th edition. Quincy, MA: National Fire Protection Association.
H. *NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents. (*2008 edition). Quincy, MA: NFPA Publications. National Fire Protection Association.
I. *NIOSH Pocket Guide to Chemical Hazards.* National Institute for Occupational Safety and Health. (Most current edition). Cincinnati, OH: US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.
J. *Standards Manual for Fire Protection Personnel.* Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.

Recommended References

The most current edition of the following publications and media are recommended (not required) supplemental material for program use.

A. *Bretherick's Handbook of Reactive Chemical Hazards*. Urben, P. G., Pitt, M. J., & Bretherick, L. (2007). Amsterdam: Elsevier.
B. *Chlorine Emergencies: An Overview for First Responders*. Chlorine Institute. (2007). Arlington, VA: The Chlorine Institute.
C. *CHRIS: Chemical Hazards Response Information System*. United States. (1992). COMDTINST, M16465.11B. Washington, DC: U.S. Dept. of Transportation, U.S. Coast Guard.
D. *Dangerous Properties of Industrial and Consumer Chemicals*. New Cheremisinoff, P., King, J. A., & Boyko, R. (1994). York, NY: M. Dekker.
E. *Emergency Care for Hazardous Materials Exposure*. St. Currance, P., Bronstein, A. C., & Clements, B. (2005). Louis, MO: Mosby.
F. *Emergency Handling of Hazardous Materials in Surface Transportation.* Association of American Railroads. (2009). Washington, DC: Association of American Railroads.
G. *Field Guide to Tank Car Identification*. American Association of Railroads. (2009). Washington, DC: American Association of Railroads.
H. *Fire Protection Guide to Hazardous Materials*. National Fire Protection Association. (2001). Quincy, MA: National Fire Protection Association.
I. *Hawley's Condensed Chemical Dictionary*. Lewis, R. J., & Hawley, G. G. (2007). West Sussex, England: Wiley.
J. *Hazardous Materials Air Monitoring and Detection Devices*. Hawley, C. (2002). Albany, NY: Delmar/Thomson Learning.

K. *Hazardous Materials Field Guide,* 2nd edition. Bevelacqua, A. S., & Stilp, R. H. (2007). Albany, NY: Delmar Publications.
L. *Hazardous Materials: Managing the Incident Field Operations Guide*. Chester Bevelacqua, A. S., Hildebrand, M. S., & Noll, G. G. (2005). MD: Red Hat Publishing, Inc.
M. *How to Use the Chlorine Institute Emergency Kit "A" for 100 lb. and 150 lb. Chlorine Cylinders* Chlorine Institute. (1996). New York. NY: The Chlorine Institute.
N. *How to Use the Chlorine Institute Emergency Kit "B" for Chlorine Ton Containers*. New Chlorine Institute. (1988). York, NY: The Chlorine Institute.
O. *How to Use the Chlorine Institute Emergency Kit "C" for Chlorine Tank Cars and Tank Trucks*. Chlorine Institute. (1993). New York, NY: The Chlorine Institute.
P. *Symbol Seeker: Hazard Identification Manual*. Burns, P. P. (2002). Preston, England: Symbol Seeker.

PB 406.03A – Container Identification

Discipline: Hazardous Materials-Technician

Name:	Officer #:
Evaluator:	Officer #:
Date:	Location:

The Haz Mat Technician shall: *(No partial points given)*

Railroad Car

A. Identify the railcar examples provided……P/F_____
B. Identify the approximate capacity of the railcar examples……P/F_____
C. Identify a material(s) and hazard class(s) commonly transported in the railcar example……P/F_____

Intermodal

A. Identify the intermodal container examples provided…… P/F_____
B. Identify the approximate capacity of the container examples……P/F_____
C. Identify a material(s) and hazard class(s) commonly transported in the container examples……P/F_____

Cargo Tank

A. Identify the highway cargo tanks provided……P/F_____
B. Identify the approximate capacity of the cargo tanks examples…… P/F_____
C. Identify a material(s) and hazard class(s) commonly transported in the cargo tank examples…… P/F_____

Fixed Facility

A. Identify the fixed facility storage tanks provided…… P/F_____
B. Identify a material(s) and hazard class(s) commonly stored in the storage tank examples…… P/F_____

Non-Bulk Packaging

A. Identify the non-bulk container packaging provided…… P/F_____
B. Identify the approximate capacity of the non-bulk container packaging…… P/F_____
C. Identify a material(s) and hazard class(s) commonly transported in the non-bulk container packaging examples…… P/F_____

Radioactive Materials Packaging

A. Identify the radioactive materials packaging provided..... P/F____
B. Identify a material(s) commonly transported in the radioactive materials packaging..... P/F____

Time Allocation

Completes skill in allotted time..... P/F ____

Allotted time for this skill: ____ minutes ____ seconds
Actual time: ____ minutes ____ seconds

Points Possible	Passing Score	Attempt	Performance Rating (Points)	PASS	FAIL
P/F	P/F	First			
		Second			
		Third			